

REMARKS

In response to the Office Action mailed June 29, 2007, Applicant respectfully requests reconsideration. Claims 1-21 were previously pending in this application. Claims 1-4, 6-8, 11-14 and 18-20 have been amended. As a result, claims 1-21 are pending for examination with claims 1, 7, 14 and 18 being independent claims. No new matter has been added.

Rejections under 35 U.S.C. §112

Claims 19 and 20 are rejected under 35 U.S.C. 112, second paragraph. The claims have been amended to state expressly what was previously implied. Therefore, the change does not alter the scope of the claim and does not introduce new matter.

Accordingly, withdrawal of the rejection is respectfully requested.

Rejections Under 35 U.S.C. §101

Claims 7-17 are rejected under 35 U.S.C. 101 because the Examiner objects to a conditional phrase including the word "if." The claims have been amended to remove the term "if." The change does not alter the scope of the claim and therefore does not introduce new matter.

Accordingly, withdrawal of this rejection is respectfully requested.

Rejections Under 35 U.S.C. §103

Claims 1-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rune, U.S. Published Patent Application No.: 2003/0060222 in view of Miklos et al., U.S. Published Patent Application No.:2003/0092386. Applicants respectfully disagree.

Initially, as an aid to the Examiner, the Applicants provide a brief summary of the specification of the present application and of the references. This summary is not intended to dissuade the Examiner from reading either the application or the references in their entireties. The summary also is not intended to characterize the claims or any language in the claims.

The present application describes a computing device that may connect to other computing devices to form networks. As a specific example, the specification describes Bluetooth devices. One step of forming connections is creating a list of a “visible” remote devices to which a local device could connect. The invention describes a “smart scan” approach for creating that list (page 10, line 10).

As illustrated in FIG. 5 of the present application, the list is created using two types of information. The first type of information is obtained from a page scan cache (505). The second type of information is obtained from an inquiry scan cache (507). The page scan and inquiry scan caches are refreshed in different fashions and accordingly contain different types of information that are combined to make the list of visible remote devices.

The inquiry scan cache is updated periodically (see element 509). In the embodiment described in the specification, the inquiry scan cache is refreshed by the local device broadcasting and listening for responses from remote devices. The page scan cache is refreshed when the local device attempts to connect to a remote device. The application also describes a second mechanism to update the inquiry scan cache. Specifically, as illustrated in FIG. 6C, the inquiry scan cache may be updated upon an attempt by a remote device to connect to the local device.

When the list of visible devices is generated, a page is sent to each remote device listed in the page scan cache (page 13, lines 13-14). If the remote device responds, that remote device is included in the list of visible devices. Additionally, devices in the inquiry scan cache are included in the list of visible networks (page 13, line 15), but at the time the list is created no attempt is made to page those devices.

As described in the present application, this approach results in a list of visible devices that includes accurate information for which a connection is most likely to be attempted—namely those devices listed in the page scan cache. The inquiry scan cache, because it is refreshed periodically and not necessarily in response to a request for the list of visible networks, may contain out-of-date information. However, it is more likely that the local device will want to connect to devices to which it has previously connected than to any device identified through an inquiry scan. Accordingly, any inaccuracies in the list because the inquire scan cache is out-of-date are unlikely to be significant. As a result, the process of

generating the list is accelerated because a page scan is performed on only a limited number of devices included in the page scan cache, with little sacrifice in accuracy.

Neither Rune nor Miklos teaches or suggests the construction of a list of visible devices in the fashion described in the present application. These references merely describe that a device may perform an inquiry scan and a page scan. They do not describe using the results of these operations to form a list of visible remote devices as described in the present application. To the contrary, Rune describes that these functions are independent. For example, paragraph 33 expressly states: “the functionality of the inquiry scan transceiver is independent of the traffic and page scan transceivers.” Thus, it is clear that the reference does not teach or suggest the use of an inquiry scan and a page scan together to form a list of visible remote devices.

These differences are reflected in the claims. Claim 1 recites “a list of a visible remote devices comprising entries in the inquiry scan cache, concatenated with each entry in the page scan cache that the local device successfully contacts by way of a page scan.” Whether the references are considered alone or in combination, they do not disclose such a list of visible remote devices.

The Examiner points generally to paragraphs 33 and 34 of Rune as meeting this limitation. However, these passages do not teach or suggest a list of a visible remote devices. Accordingly, the reference cannot teach or suggest the limitations relating to the construction of that list. As is made clear in Rune, the inquiry scan and page scan are independent and there is no teaching or suggestion in the reference to form a list of visible remote devices using inquiry scan and page scan information together in a way that would meet the limitation of claim 1.

Further, the claim recites both “an inquiry scan cache” and “a page scan cache.” Also, the claim expressly recites for each cache a method by which it is refreshed. Specifically the inquiry scan cache is refreshed “by a periodic inquiry scan.” The page scan cache is refreshed “by way of an attempt to connect to at least one remote device.” Applicants respectfully disagree that either reference shows or suggest such caches.

In the Office Action, the Examiner points to paragraph 30 of Rune as teaching an inquiry scan cache. However, the cited passage describes only an inquiry scan transceiver and makes no mention of a cache. Similarly, neither reference teaches or suggests a page scan

cache as claimed. The Examiner points to paragraph 32 of Rune as teaching this limitation. However, the cited passage describes only a page scan transceiver and does not describe either a page scan cache or that the cache is refreshed in a way that would meet the limitation of the claim.

The Examiner asserts that Miklos renders claim 1 obvious because it describes that an inquiry scan may be periodic. However, this additional teaching is unrelated to the features of the claim not shown in Rune, which Miklos does not teach. Miklos does not teach construction of a list of visible devices using information from two caches. Accordingly, even if Miklos were combined with Rune, the combination would have independent operation of an inquiry scan and a page scan as described in Rune. Specifically, the combination would not teach or suggest a list of visible remote devices formed from the combination of information obtained from an inquiry scan and a page scan.

As described above, there are multiple reason that the references, whether considered alone in combination, do not teach or suggest all limitations of claim 1.

Claims 2-6 depend from claim 1 and distinguish the references for at least the same reasons as claim 1. The dependent claims recite limitations that further distinguish the references. For example, claim 6 recites that “the inquiry scan cache is additionally updated by way of an attempt by a remote Bluetooth device to connect to the local device.” Applicants respectfully disagree that either reference shows or suggest an inquiry scan cache updated in this fashion.

Independent claim 7 also recites multiple limitations not shown or suggested in the references. Claim 7 recites “forming the list of visible devices by combining at least a portion of the page scan cache with the inquiry scan cache.” As summarized above, the references describe independent operation of page scan and inquiry scan. Accordingly, the references, whether considered alone or in combination, do not teach or suggest this limitation. Further, claim 7 recites both an inquiry scan cache and a page scan cache and the update mechanisms for these caches. Specifically, the claim recites that the inquiry scan cache is updated “by way of a periodic inquiry scan.” The page scan cache is updated “in response to an attempt to connect to a remote device.” Because neither reference shows or suggest an inquiry scan cache and a page scan cache or caches that are updated as recited in the claim, there are multiple limitations in claim 7 not met by the references.

Claims 8-13 depend from claim 7 and distinguish the references for at least the same reasons. Additionally, the dependent claims recite limitations that further distinguish the references. For example, claim 8 recites further details on how the list of visible remote devices is formed. As an other example, claim 9 recites steps associates with managing the page scan cache, including an approach for setting an expiration time for an entry. Claim 10 recites adding an entry to the inquiry scan cache or a remote device that attempts to connect to the local device. Applicants respectfully assert that, because the references do not describe or suggest caches as claimed, they cannot teach or suggest the limitations of the dependent claims that relate to operation of those caches.

Independent claim 14 also recites multiple limitations not shown or suggested in the references. Claim 14 recites “forming a list of visible remote Bluetooth devices comprising a combination of entries from the inquiry scan cache and the page scan cache.” The claim further recites both an inquiry scan cache and a page scan cache along with a mechanism for updating each cache. As described above, the references, whether considered alone or in combination, do not teach or suggest forming a visible list of remote Bluetooth devices as claimed. Nor do the references teach the caches as claimed or the mechanism for updating them.

Claims 15-17 depend from claim 14 and distinguish the references for at least the same reasons as claim 14. The dependent claims recite limitations that further distinguish the references.

Independent claim 18 also recites limitations not shown or suggested in the references, whether considered alone or in combination. For example, claim 18 recites an inquiry scan cache and a page scan cache and “a list of visible remote Bluetooth devices comprising entries in the inquiry scan cache, concatenated with each entry in the page scan cache that the local Bluetooth device successfully contacts by way of a page scan.” The claim also recites mechanisms for refreshing the caches, indicating that the inquiry scan cache is refreshed “by an attempt to connect the local Bluetooth device by the remote Bluetooth device.” The page scan cache is refreshed “by way of an attempt to connect to the remote Bluetooth device.” Because the references do not teach or suggest caches, they provide no teaching relevant to these additional limitations relating to the mechanism for refreshing the caches.

Claims 19-21 depend from claim 18 and distinguish the references for at least the same reasons as claim 18. Additionally, the dependent claims recite limitations that further distinguish the references.

Accordingly, withdrawal of this rejection is respectfully requested.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

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